SEER*DMS

Overview and Current Status

Overview - Rationale

- NCI's SEER Program - 17 population based registries

- Many registries have DMS systems developed as far back as mid 1980's that are nearing the end of their hardware & software life cycles

- Unified SEER DMS, including all core registry functions, implemented in individual registries would save development/implementation costs and have the numerous other benefits.

Overview – Project Definition

To provide a flexible registry system that takes advantage of common functionality and best practices, while allowing individual differences to be accommodated.

Overview – Project Definition (Stakeholders)

- SEER Registries and all of their staff (primary)
- NCI SEER Program (primary)
- Software Vendors
- Researchers
- Patients
- State Health Departments
- Legislators – State and Federal
- NAACCR – non-SEER registries
- State Registries
- American Cancer Society
- …

Overview – Project Definition (Intentions)

- To report high-quality cancer incidence, treatment, and survival data

- To use resources (budget and staff) most effectively and efficiently.

- To make sure that all the registries can continue to operate

- To be able to adapt to the inevitable changes in the healthcare system.

Overview – Project Definition (Values)

- Accurate, timely and complete data

- Registry autonomy

- Taking advantage of each others expertise

- A solution that will last - not interested in just a patch

- Not disrupting the normal flow of data through each registry

Overview – Project Definition (Breadth)

Registry operations from the diagnosis of cancer to edited final consolidated records on the master file and then data submission (excludes administrative activities, registry professional affiliations)

Overview – High Level View of Process

- Define the goals of the project (the project definition)

- Collect requirements from subject matter experts (SMEs)

- Use requirements as basis for design

- Design and develop system

- Verify that requirements are met by application and that application works correctly – testing.

- Deploy new system to SEER registries

Overview – Where We Are Now

- ☑ Project Definition
- ☑ Requirements Analysis
- ☑ Architectural Design
- ☑ Detailed Design
- ☑ System Development (V1.0)
- ☑ Testing
- ■ Deployment to 1st Registry
- ■ Deployment to Other Registries

SEER*DMS Requirements Analysis - Modeling

Requirements Analysis - Methodologies

- JDA – Joint Development Approach
  - Group-developed
  - Consensual
  - Facilitated
  - Structured
- Group Tele/Video- Conferences
- Inquiries (surveys)
- Individual phone conversations and emails

Requirements Analysis - Chronology

- Inquiries to registries
- NCI/IMS built "straw man" project definition and high level BPM for initial Kick-off meeting
- Model building - BOM
- Model building - 5 separate BPMs
- Model building - Location Model
- Model building – Socio-political Model
- Clarification and extension of models
- Moving models from "current physical" to "new logical" – creating LBTs
- Additional inquiry to update information
- Checkpoints and confirmation

Requirements Analysis - Subject Matter Experts

- **Registry Staff**
    - PIs
    - Registry Managers
    - IT Staff
- **NCI QC staff**

Requirements Analysis – End Goal

To obtain "accurate" models that are at a level of detail to be effectively used by system developers to design a new system.